Application Development Best Practices:

Best Practice 1. Adopt a total cost of ownership model for applications and technologies that balances the costs of development, support, training, disaster recovery and retirement against the costs of flexibility, scalability, ease of use, and reduction of integration complexity.

Best Practice 2. Implement business rules as discrete components ensuring the correct enactment of policies governing the accuracy of related data and the execution of the actions to be performed. Discrete components support the ease of change to business rules and policies and verification that the information or process complies with the applicable rules.

Best Practice 3. Access data through business rules.

Best Practice 4. Make business rule components platform-neutral supporting SOA architecture.

Best Practice 5. Assign responsibility for defining and maintaining the integrity of business rules to business units.

Best Practice 6. Adopt coding standards for all languages on all platforms.

Best Practice 7. Design applications for future usage and added functionality. Most applications evolve to support new business requirements. Extensibility provides functional scalability.

Best Practice 8. Use integrated tool sets to support the use of the State's SDM.

Best Practice 9. Document object models, interaction diagrams, design artifacts, and record the structure, behavior, and interfaces of application solutions. Document business processes, business rules, source code, and user interface.

Best Practice 10. Design applications that are platform independent.

Best Practice 11. Design the code providing input and output to the user interface to support as wide a range of interfaces as needed, including other applications and other types of user interfaces such as internal user, mobile user, Internet, and Extranet.

Best Practice 12. Once the detailed application design is complete, concentrate on achieving a working system utilizing reusable components whenever possible, allowing the system to be tested first and optimized later.

Best Practice 13. Design applications so they can be managed using the enterprise's system management practices and tools.

Best Practice 14.   Design for ease of testing; design application components so they can be tested and debugged easily.

Best Practice 15. Design web-facing applications to support the current minimum "code to" standards for web browsers. Refer to Web E-Gov Domain. Recommended baseline "code to" standards optionally include Microsoft IE 6.0 and above, Mozilla Firefox 3.x and above, Google Chrome 4.x and above, Apple Safari 3.x and above, and Opera 10.x and above.

Best Practice 16. Implement Commercial Off-The-Shelf (COTS) solutions with little or no customizations and well defined governance procedures. Business needs requiring specific customizations should lean towards Modifiable Off-The-Shelf (MOTS) solutions or Government Off-The-Shelf (GOTS) solutions.

Best Practice 17. Establish and maintain shared reuse libraries.

Best Practice 18. Develop solutions using industry standard coding practices including conventions, styles, standards, and security guidelines.